

**"PROJECT DESIGN CENTER -
AN ENVIRONMENT WHICH ENABLES THE DESIGN OF LOW-COST PLANETARY
MISSIONS**

A Project Design Center, provides a concurrent engineering environment for the design of a planetary project. The elements of Mission Design, Spacecraft Design and Mission operations System Design are co-located in the Project Design Center. The environment is an electronic environment and a physical facility where the designers of these three complimentary mission elements concurrently design new missions. The objective of the Project Design Center being developed at the Jet Propulsion Laboratory is to lower project cost and reduce risk through the accomplishment of earlier, more accurate design determination and life-cycle costing.

interactions between mission designers, spacecraft designers and mission operations designers during the very early study phases have been shown to reduce both life cycle costs and implementations of mission operations systems. The capabilities and concept of the project design center leads to missions which are designed to be compatible with existing multi-mission capabilities. Tradeoffs between S/C design existing ground system capabilities and mission operations costs are enabled early in the study phase.

The Project Design Center at JPL will begin supporting pre-project design groups in the fall of 1994. The design, concepts and experience gained during the first few months of development will be discussed.

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